

MONTANA DEQ

FOREST ROSE MINE FACT SHEET

FOREST ROSE MINE RECLAMATION PROJECT, GRANITE COUNTY

MINE WASTE CLEANUP BUREAU, ABANDONED MINE SECTION

January 2011

PROJECT DESCRIPTION



The Forest Rose Mine is an abandoned hard rock mine composed of approximately four acres of mining impacted land along Dunkleberg Creek. Contamination is a residual of historic mining activities dating from the late 1890s to the late 1940s. Characteristics of the site include seven adits, three tailings impoundments, and one waste rock area. An estimate of 90,000 cubic yards (cy) of tailings and 8,000 cy of waste rock exist at the site. Elevated levels of arsenic, cadmium, copper, iron, mercury, lead, antimony, and zinc are found in tailings and waste rock samples. Surface water and groundwater samples show elevated levels of arsenic, cadmium, copper, iron, lead, and zinc. Sediment samples show elevated levels of arsenic, copper, iron and lead. This site currently ranks 11th on the DEQ Priority Abandoned Hard Rock Mine list of 133 sites that need reclamation.

PROJECT LOCATION



The Forest Rose Mine Reclamation Project site is located at an elevation of approximately 5,500 feet above mean sea level, approximately ten miles southeast of Drummond, Montana, in Section 22, Township 9 North, Range 12 West, in Granite County. The site is accessed by traveling southeast from the Jens exit located on U.S. Interstate 90 from Helena and traveling approximately 11 miles on Dunkleberg Creek Road (Forest Service Road 707).



Lower Tailings Impoundment

FOR MORE INFORMATION CONTACT:

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CONTAMINANTS OF CONCERN

The Forest Rose Mine site contains approximately 98,000 cy of heavy metal contaminated tailings and waste rock. The tailings and waste rock contain elevated levels of antimony, arsenic, cadmium, copper, iron, lead, mercury, and zinc. Surface water and groundwater sample results show elevated levels of arsenic, cadmium, copper, iron, and zinc. Sediment sample results show elevated levels of arsenic, copper, iron, and lead.

Concentrations of the primary contaminants of concern, arsenic and lead, include:

Tailings

Arsenic: up to 555 mg/kg

Lead: up to 9,820 mg/kg

Waste Rock

Arsenic: up to 486 mg/kg

Lead: up to 4,560 mg/kg

PROPOSED RECLAMATION

The main focus of the Forest Rose Mine Reclamation Project is to limit human and ecological exposure to mine-related contaminants and reduce the mobility of those contaminants through the soil and surface water. Reclamation alternatives to address the solid waste will be developed during the Expanded Engineering Evaluation and Cost Analysis. Reclamation options that will be evaluated include no action, institutional controls, in-situ stabilization of wastes, and complete removal of waste material. The potential preferred reclamation option includes complete removal of solid waste, reconstruction of Dunkleberg Creek, and placement of wastes in a nearby engineered repository (waste disposal facility).

BENEFITS OF RECLAMATION

Reclamation activities will benefit Montanans both environmentally and economically. By removing the waste rock and tailings from Dunkleberg Creek, the water quality in the creek will improve. By removing the contaminated tailings impoundments and preventing the chance of impoundment failure, future contamination to the creek and associated drainages will be prevented. In addition, the risk to recreational visitors will be reduced. Reclamation activities will also benefit Montana's economy by providing engineering and construction jobs.



Upper Tailings Impoundment



Dunkleberg Creek